

AMENDMENTS TO THE CLAIMS

1. – 154. (Canceled)

155. (Currently amended) A content distribution apparatus comprising:
means for reading at least one item of encoded data and at least one item of error correction code data from a content file;

first through Nth encoded data transmission means for receiving the read encoded data and outputting first through Nth encoded data (wherein N is an integer equal to or greater than one); [[and]]

at least one error correction code data transmission means for receiving the read error correction code data and outputting the error correction code data;

call connection processing means for controlling call connection between the content distribution apparatus and a content receiving apparatus; and

means for controlling session information notified by the call connection processing means to the content receiving apparatus among first through Nth distribution sessions to control quality level and quality stability of content to be reproduced by the content receiving apparatus,

at least one of

(a) at least a part of the first through Nth encoded data and (b) at least a part of the error correction code data, being transmitted.

156. (Currently amended) The content distribution method defined in claim [[154]] 155, further comprising:

means for reading at least one item of Intra-frame encoded data from said content file;
and

intra-frame encoded data transmission means for transmitting at least one Intra-frame encoded data read;

at least a part of the Intra-frame encoded data being transmitted.

157. (Canceled)

158. (Currently amended) A content distribution apparatus comprising:
means for reading at least one item of encoded data and at least one item of error correction code data from a content file;
first through Nth encoded data transmission means for receiving the read encoded data and outputting first through Nth encoded data (wherein N is an integer equal to or greater than one);
at least one error correction code data transmission means for receiving the read error correction code data and outputting the error correction code data;
call connection processing means for controlling call connection between the content distribution apparatus and a content receiving apparatus; and
means for controlling session information notified by the call connection processing means to the content receiving apparatus among first through Nth distribution sessions to control quality level and quality stability of content to be reproduced by the content receiving apparatus,
at least one of: a) at least a part of the first through Nth encoded data, respectively[[;]] and (b) at least a part of the error correction code data[[;]], being transmitted with time difference or interleaving.

159. (Currently amended) The content distribution apparatus defined in claim [[157]] 158, further comprising:
means for reading at least one item of Intra-frame encoded data from said content file;
and
Intra-frame encoded data transmission means for transmitting the at least one read-in Intra-frame encoded;
at least a part of the Intra-frame encoded data being transmitted with a time difference or interleaving.

160. (Currently amended) The content distribution apparatus defined in claim [[157]] 158, wherein the time difference or the interleaving is set according to one of:

- a state of a transmission path;
- compression rates for encoding;
- a distribution rate; and
- a predetermined rule.

161. (Currently amended) The content distribution apparatus defined in claim [[157]] 158, further including:

means for notifying setting of the time difference or interleaving to a content receiving apparatus using at least one of call connection processing and a predetermined method.

162. (Currently amended) The content distribution method defined in claim [[154]] 155, including:

means for notifying at least one of:

- a type of the encoded data for transmission;
- a setting of the encoding;
- a number of the encoded data;
- a type of error correction encoding;
- setting of the error correction encoding;
- a number of the error correction code data; and
- a number of the Intra-frame encoded data;

to said content receiving apparatus, using the call connection processing.

163. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, wherein in case the N is the integer equal to or greater than two, each transmitting unit of the first through Nth encoded data is an encoded data unit obtained by encoding information on a same location of a same medium or in a same time period.

164. (Previously presented) The content distribution apparatus defined in claim 163, including:

means for assigning a same identification number to the same transmitting unit of the first through Nth encoded data, respectively, in case the N is the integer equal to or greater than two.

165. (Previously presented) The content distribution apparatus defined in claim 163, including:

means for assigning to the encoded data transmitting unit of at least one of the first through Nth encoded data information allowing identification to which one of the encoded data the encoded data transmitting unit belongs.

166. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, wherein at least one of said first through Nth encoded data transmission means includes means for selecting whether to transmit the at least a part of the data for transmission or not according to at least one of the distribution rate and the state of the transmission path.

167. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, wherein when selecting the part of the data for transmission, at least one of said first through Nth encoded data transmission means includes means for selecting the data according to a property of encoding information or the predetermined rule.

168. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, comprising:

means for encrypting the at least a part of the data, for transmission.

169. (Previously presented) The content distribution apparatus defined in claim 168, comprising:

means for controlling at least one of:
presence or absence of the encryption;

a distribution destination of an encryption key;
an encryption scheme; and
an intensity of the encryption, thereby controlling at least one of quality, stability, and confidentiality of contents to be distributed on a content distribution side.

170. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, comprising:

means for transmitting the data to be output from said first through Nth encoded data transmission means using different sessions, respectively.

171. (Currently amended) The content distribution apparatus defined in claim [[154]] 155, comprising:

at least one means for multiplexing at least two outputs of the output data output from said encoded data transmission means;

the multiplexed data and the data not multiplexed being transmitted using different sessions, respectively.

172. (Previously presented) The content distribution method defined in claim 170, wherein multicast or broadcast transmission is performed using at least one session for distribution.

173. (Previously presented) The content distribution apparatus defined in claim 170, comprising:

means for controlling a notification destination of session information on a session for transmitting the data, thereby controlling quality and stability of contents to be distributed on a content distribution side.

174. (Previously presented) The content distribution apparatus defined in claim 170, comprising:

means for performing at least one of routing priority control on a transmission path and power control on a wireless transmission path using at least one of sessions for distributing the data.

175. (Canceled)

176. (Currently amended) A content receiving apparatus comprising:

means for receiving encoded data and error correction code data, from at least one session and identifying individual ones of the encoded data and the error correction code data therefrom; and, the encoded data and error correction code data being transmitted from a content distribution apparatus comprising:

means for reading at least one item of encoded data and at least one item of error correction code data from a content file;

first through Nth encoded data transmission means for receiving the read encoded data and outputting first through Nth encoded data, wherein N is an integer equal to or greater than one;

at least one error correction code data transmission means for receiving the read error correction code data and outputting the error correction code data; and

means for multiplexing data from at least two out of the first through Nth encoded data transmission means, for transmission of at least one of

(a) at least a part of the first through Nth encoded data; and

(b) at least a part of the error correction code data, being transmitted, \

wherein the content file is created by a content encoding apparatus comprising:

means for encoding an input signal or an input data file at mutually different compression rates, respectively, wherein M is an integer equal to or greater than one;

means for generating at least one item of error correction code data from at least one of said first through Mth encoded data; and

means for writing the encoded data and the error correction code data, with a preset time difference or with interleaving, into a file as independent tracks, respectively,

the content receiving apparatus further comprising:

means for extracting the encoded data received with no transmission error and no dropout from among the received data and for restoring the encoded data using the error correction code data when the transmission error or the dropout is present to reconstruct the encoded data; and

means for selecting whether to receive the error correction code data when receiving at least two of the error correction code data or the error correction code data used in error correction processing, based on at least one of:

error/loss rate of received data;

error/loss state of data on a transmission path;

error correction encoding scheme;

available power; and

setting set in advance.

177. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, further including:

means for receiving the encoded data and the Intra-frame encoded data from at least one session and identifying individual ones of the encoded data therefrom.

178. (Previously presented) The content receiving apparatus defined in claim 177, wherein means for reconstructing the encoded data selects the Intra-frame encoded data by a predetermined device.

179. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, including:

means for restoring the encoded data using at least one of:

an encryption key obtained by call connection processing when the encoded data is encrypted;

a distributed encryption key; and
a predetermined encryption key.

180. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, further comprising:

means for selecting whether to receive the data by at least one of the encoded data receiving means based on at least one of:
error/loss rate of received data;
available power; and
setting set in advance.

181. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, further including:

a step of selecting whether to receive at least one of the error correction code data when receiving the at least one of the error correction code data or the error correction code data used in error correction processing, based on at least one of:
error/loss rate of received data;
error/loss state of data on a transmission path;
error correction encoding scheme;
available power; and
setting set in advance.

182. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, wherein the means for reconstructing the encoded data determines whether the encoded data is duplicated or not based on an identification number assigned to a transmitting unit of the encoded data.

183. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, wherein the means for reconstructing the encoded data comprises means for determining at least one of a compression rate and a data type of the encoded data using at least one of:

- (a) a predetermined distribution data receiving session;
- (b) predetermined data identification information assigned to the transmitting unit of the data;
- (c) a distribution data receiving session, notified by the call connection processing;
- and
- (d) data identification information assigned to the transmitting unit of the data and notified by the call connection processing.

184. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, wherein a unit of the encoded data transmitted by interleaving the unit or providing a time difference for the unit can be received, and a buffer size determined by at least one of:

- (a) a predetermined receive buffer size;
- (b) a buffer size notified by the call connection processing;
- (c) a buffer size calculated based on a predetermined content distribution rate and information on a time difference or interleave setting; and
- (d) a buffer size calculated based on a content distribution rate notified by the call connection processing and the information on the time difference or interleave setting; is secured so that the encoded data can be reconstructed.

185. (Currently amended) The content receiving apparatus defined in claim [[175]] 176, comprising:

means for transmitting a reception status of distributed data to a content distribution apparatus.

186. (Canceled)

187. (Previously presented) The content distribution apparatus defined in claim 155, further comprising:

means for multiplexing the data output from at least two of said first through Nth encoded data transmission means, for transmission.

188. (Canceled)

189. (Previously presented) The content distribution apparatus defined in claim 158, further comprising:

means for multiplexing the data output from at least two of said first through Nth encoded data transmission means, for transmission.

190. (New) A content receiving apparatus comprising:

means for receiving encoded data and error correction code data, from at least one session and identifying individual ones of the encoded data and the error correction code data therefrom, the encoded data and error correction code data being transmitted from content distribution apparatus comprising:

means for reading at least one item of encoded data and at least one item of error correction code data from a content file;

first through Nth encoded data transmission means for receiving the read encoded data and outputting first through Nth encoded data, wherein N is an integer equal to or greater than one;

at least one error correction code data transmission means for receiving the read error correction code data and outputting the error correction code data; and

means for multiplexing data from at least two out of the first through Nth encoded data transmission means, for transmission of at least one of

(a) at least a part of the first through Nth encoded data; and

(b) at least a part of the error correction code data being transmitted,

wherein the content file is created by a content encoding apparatus comprising:

means for encoding an input signal or an input data file at mutually different compression rates, respectively, wherein M is an integer equal to or greater than one;

means for generating at least one item of error correction code data from at least one of said first through Mth encoded data; and

means for writing the encoded data and the error correction code data, with a preset time difference or with interleaving, into a file as independent tracks, respectively,

the content receiving apparatus further comprising:

means for extracting the encoded data received with no transmission error and no dropout from among the received data and for restoring the encoded data using the error correction code data when the transmission error or the dropout is present to reconstruct the encoded data; and

means for selecting whether to receive the error correction code data when receiving at least two of the error correction code data or the error correction code data used in error correction processing, based on at least one of:

error/loss rate of received data;

error/loss state of data on a transmission path;

error correction encoding scheme;

available power; and

setting set in advance.

191. (New) A content receiving apparatus comprising:

means for receiving encoded data and error correction code data, from at least one session and identifying individual ones of the encoded data and the error correction code data therefrom, the encoded data and error correction code data being transmitted from content distribution apparatus comprising:

means for reading at least one item of encoded data from a content file; and

first through Nth encoded data transmission means for receiving the read encoded data and outputting first through Nth encoded data, wherein N is an integer equal to or greater than two;

means for multiplexing data from at least two out of the first through Nth encoded data transmission means, for transmission of at least one of

(a) at least a part of the first through Nth encoded data; and

(b) at least a part of the error correction code data, being transmitted

with time difference or interleaving,

wherein the content file is created by a content encoding apparatus comprising:

means for encoding an input signal or an input data file at mutually different compression rates, respectively, wherein M is an integer equal to or greater than one;

means for generating at least one item of error correction code data from at least one of said first through M th encoded data; and

means for writing the encoded data and the error correction code data, with a preset time difference or with interleaving, into a file as independent tracks, respectively, the content receiving apparatus further comprising:

means for extracting the encoded data received with no transmission error and no dropout from among the received data and for restoring the encoded data using the error correction code data when the transmission error or the dropout is present to reconstruct the encoded data, and

means for selecting whether to receive the error correction code data when receiving at least two of the error correction code data or the error correction code data used in error correction processing, based on at least one of:

- error/loss rate of received data;
- error/loss state of data on a transmission path;
- error correction encoding scheme;
- available power; and
- setting set in advance.

192. (New) A content receiving apparatus comprising:

means for receiving encoded data and error correction code data, from at least one session and identifying individual ones of the encoded data and the error correction code data therefrom, the encoded data and error correction code data being transmitted from content distribution apparatus comprising:

means for reading at least one item of encoded data from a content file; and

first through N th encoded data transmission means for receiving the read encoded data and outputting first through N th encoded data wherein N is an integer equal to or greater than two;

means for multiplexing data from at least two out of the first through Nth encoded data transmission means, for transmission of at least one of

(a) at least a part of the first through Nth encoded data; and

(b) at least a part of the error correction code data, being transmitted with time difference or interleaving,

wherein the content file is created by a content encoding apparatus comprising:

means for encoding an input signal or an input data file at mutually different compression rates, respectively, wherein M is an integer equal to or greater than one;

means for generating at least one item of error correction code data from at least one of said first through Mth encoded data; and

means for writing the encoded data and the error correction code data, with a preset time difference or with interleaving, into a file as independent tracks, respectively,

the content receiving apparatus further comprising:

means for extracting the encoded data received with no transmission error and no dropout from among the received data and for restoring the encoded data using the error correction code data when the transmission error or the dropout is present to reconstruct the encoded data, and

means for selecting whether to receive the error correction code data when receiving the at least two of the error correction code data or the error correction code data used in error correction processing, based on at least one of:

error/loss rate of received data;

error/loss state of data on a transmission path;

error correction encoding scheme;

available power; and

setting set in advance.